CHLAMYDIA TRACHOMATIS CULTURE TECHNIQUE IN DIAGNOSIS AT ARMED FORCES RESEARCH INSTITUTE OF MEDICAL SCIENCES (AFRIMS)

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ABSTRACT

Chlamydia trachomatis is the most common bacterial sexually transmitted disease (STD) and significant cause of morbidity in untreated cases. To detect *Chlamydia trachomatis* for diagnostic service in Bangkok by cell culture technique, thirty-nine clinical specimens were performed. These specimens were shaken vigorously on a vortex mixer for releasing elementary bodies and inoculated in McCoy cell. Centrifuged the plate at 2,000 g for 1 hour at 30°C, then add growth medium supplemented with 2 μg/ml of cycloheximide and 0.6 mg/ml of glucose and incubate at 35°C for 72 hours. The presence of typical dark-brown inclusions surrounded by halo was considered as positive by Jone's iodine staining. Of 39 total specimens, including 27 urethral, 1 conjunctiva and 11 cervical swabs, 3 positive cultures were shown (3/39) and one positive culture was found in each kind of specimen. STD laboratory at AFRIMS for diagnosis of *Chlamydia trachomatis* remain using cell culture technique, gold standard method, because compared with other diagnostic tests, a major advantage of cell culture isolation is a specificity that approaches 100%. In addition, the centrifugation of specimens onto the cell monolayers of McCoy cell in our cell culture technique increases sensitivity. However, the cell culture technique is technically difficult and requires 3-7 days to obtain a result, special transport media must be used, and transportation and storage temperature requirements are stringent.

Key words: *Chlamydia trachomatis,* McCoy cell, Inclusion body

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